

ABSTRACT

An array of semiconductor circuit elements such as light-emitting elements includes a semiconductor layer partially covered by a dielectric film. A first interconnecting pad such as a wire-bonding pad is electrically coupled by conductive paths passing through the semiconductor layer to electrodes of a first group of semiconductor circuit elements formed in the semiconductor layer. A second interconnecting pad such as a wire-bonding pad, formed on the dielectric film, is electrically coupled to electrodes of a second group of semiconductor circuit elements formed in the semiconductor layer by conductive paths insulated from the semiconductor layer by the dielectric film. The second conductive paths cross the first conductive paths at points at which the first conductive paths pass through the semiconductor layer, so that only a single layer of metal interconnecting lines is needed.